

UNDERSTANDING DIFFERENT TYPES OF DATA CENTERS

A PRACTICAL GUIDE FOR LOCAL OFFICIALS



Not all data centers are created equal. A small enterprise facility and a hyperscale campus may have dramatically different infrastructure needs, economic impacts, and planning considerations.

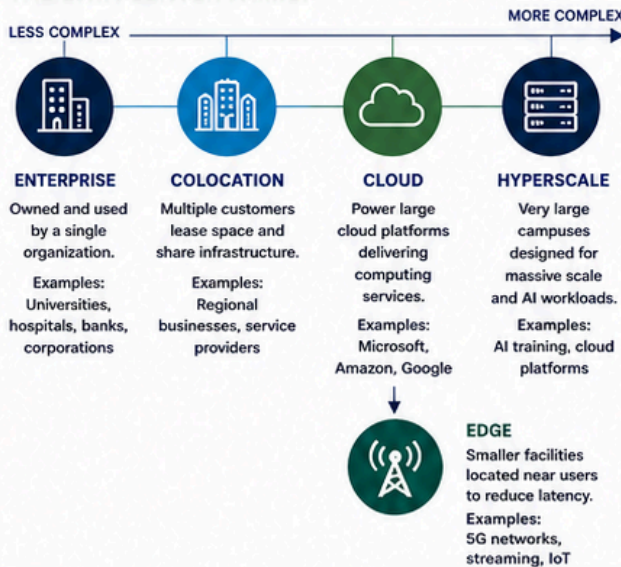


Understanding the type of data center proposed is the first step toward informed local decision-making.

WHAT IS A DATA CENTER?

Data centers are facilities that house computing equipment used to store, process, and transmit digital information. They support cloud computing, artificial intelligence, financial transactions, healthcare systems, government operations, and nearly every modern internet service.

THE DATA CENTER FAMILY



COMPARING COMMON DATA CENTER TYPES

TYPE	TYPICAL SIZE	USERS / OWNERSHIP	KEY COMMUNITY CONSIDERATIONS
ENTERPRISE	Small to Medium	Single Organization	Often resembles traditional commercial development.
COLOCATION	Medium to Large	Multiple Tenants	Significant fiber connectivity and redundancy needs.
CLOUD	Large	Regional or National Customers	Higher power requirements; may require utility upgrades.
HYPERSCALE	Very Large (100+ acres possible)	Global Platforms	Major power and land needs; potential for substations and water infrastructure.
EDGE	Small	Local Users / Devices	Often located near population centers and existing infrastructure.

TYPICAL INFRASTRUCTURE INTENSITY*



PENNSYLVANIA CONNECTION

Pennsylvania's reliable power grid, strong fiber backbone, and strategic location make the Commonwealth an attractive place for data center investment.

WHY FACILITY TYPE MATTERS

The type of data center determines many aspects of a project, including the resources it requires and the impacts it may have on the community.

- ELECTRICITY DEMAND**: Ranges from tens of kilowatts to hundreds of megawatts.
- WATER USE**: Varies based on cooling technology and facility scale.
- TRAFFIC & TRANSPORTATION**: Construction and operations generate different traffic patterns.
- LAND & BUILDING NEEDS**: Site size can vary from a few thousand square feet to several hundred acres.
- ECONOMIC IMPACT**: Jobs, capital investment, and tax revenue differ by facility type.
- COMMUNITY CHARACTER**: Impacts on noise, lighting, visual appearance, and surrounding uses.

QUESTIONS FOR LOCAL OFFICIALS

- BEFORE A PROPOSAL ARRIVES**
 - ✓ Does our current zoning address data centers?
 - ✓ Do we understand our utility capacity and limitations?
 - ✓ Have we identified priority areas for industrial development?
- DURING THE REVIEW PROCESS**
 - ✓ What type of data center is being proposed?
 - ✓ What are the facility's power, water, and fiber requirements?
 - ✓ Will the project be built in phases?
 - ✓ What is the plan for future expansion?
- LONG-TERM PLANNING**
 - ✓ How does this project align with our comprehensive plan?
 - ✓ Are our infrastructure and emergency services prepared?
 - ✓ How will the project contribute to our community goals?

KEY TAKEAWAYS

Data centers are not a single land-use category.

Different facility types have different infrastructure needs.

Facility type influences community impacts and benefits.

Understanding the proposed use improves decision-making and outcomes.